What is claimed is:

1. An optical waveguide comprising:

a core guiding layer;

a cladding layer positioned adjacent to the core guiding layer;

a reflective layer positioned adjacent to the cladding layer; and

a grating for coupling light into the waveguide;

wherein the cladding layer has a thickness such that a ray reflected from the reflective layer is phase matched to an incident ray at the grating.

2. The optical waveguide of claim 1, wherein consecutive leaky rays from the guiding layer at the grating are in-phase or have a phase difference of multiple 2π.

3. The optical waveguide of claim 1, wherein the grating is positioned on a surface of the core guiding layer opposite the cladding layer.

4. The optical waveguide of claim 1, wherein the grating is positioned at an interface of the core guiding layer and the cladding layer.

5. The optical waveguide of claim 1, wherein the grating comprises a plurality of rectangular grooves in the core guiding layer.

6. The optical waveguide of claim 1, wherein the grating comprises a plurality of rectangular ridges on the core guiding layer.

7. A magneto-optical recording head comprising:

a magnetic write pole; and

the optical waveguide of claim 1 positioned adjacent to the magnetic write pole.

8. A disc drive comprising:

means for supporting a storage medium;

the magneto-optical recording head of claim 7; and

means for positioning the magneto-optical recording head adjacent to the storage medium.

9. An optical waveguide comprising:

a core guiding layer;

a cladding layer positioned adjacent to the core guiding layer; and

a grating having a period Λ of $\frac{\lambda}{n_{eff}} < \Lambda < \frac{2\lambda}{n_{eff} + n_s}$, for coupling light into the waveguide, wherein n_{eff} is the effective refractive index of the guiding layer, n_s is the refractive index of the cladding layer, and λ is the wavelength of an electromagnetic wave.

10. The optical waveguide of claim 9, wherein the grating is positioned on a surface of the core guiding layer opposite the cladding layer.

11. The optical waveguide of claim 9, wherein the grating is positioned at an interface of the core guiding layer and the cladding layer.

12. The optical waveguide of claim 9, wherein the grating comprises a plurality of rectangular grooves in the core guiding layer.

13. The optical waveguide of claim 9, wherein the grating comprises a plurality of rectangular ridges on the core guiding layer.

14. A magneto-optical recording head comprising:

a magnetic write pole; and

the optical waveguide of claim 9 positioned adjacent to the magnetic write pole.

15. A disc drive comprising:

means for supporting a storage medium;

the magneto-optical recording head of claim 14; and

means for positioning the magneto-optical recording head adjacent to the storage medium.

16. The disc drive of claim 15, wherein the means for supporting a storage medium comprised a spindle motor; and

the means for positioning the magneto-optical recording head adjacent to the storage medium comprises an arm.

17. A method of coupling electromagnetic radiation into optical waveguide including a core guiding layer, a cladding layer positioned adjacent to the core guiding layer, a reflective layer positioned adjacent to the cladding layer, and a grating for coupling light into the core guiding layer, the method comprising:

directing first and second rays onto the grating, wherein the first and second rays are in phase with each other and wherein the cladding layer has a thickness such that the first ray reflected from the reflective layer is phase matched to the second ray at the grating.

18. A method of coupling electromagnetic radiation into optical waveguide including a core guiding layer, a cladding layer positioned adjacent to the core guiding layer, a reflective layer positioned adjacent to the cladding layer, and a grating for coupling light into the core guiding layer, the method comprising: directing electromagnetic radiation onto the grating to create a guided mode in the guiding layer, wherein radiated rays from the guided mode into the cladding layer are in-phase or have a phase difference of multiple 2π.